#### **Personal Information**



Full Name : Dr. Konstantinos Dimitriou (PhD)

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#### **Education**

#### **ACADEMIC DEGREES**

[2006] BSc degree in Physics

Physics Department, University of Ioannina (Greece) Ministry of Education, Hellenic Republic

 [2009] MSc degree: Meteorology Climatology and Physics of the Atmospheric Environment

Physics Department, University of Ioannina (Greece) Ministry of Education, Hellenic Republic

Title of MSc Thesis: «Calculation of combined air quality indicators in the Attica region. The impact of atmospheric pollutants on human health»

• [2013] PhD degree: Atmospheric Sciences and Environment

Physics Department, University of Ioannina (Greece) Ministry of Education, Hellenic Republic

<u>Title of PhD Thesis: «PM<sub>10</sub> and PM<sub>2.5</sub> aerosols in Europe: Local sources, atmospheric transportation, impacts in air quality»</u>

#### <u>SEMINARS – SUMMER SCHOOLS</u>

[2008] Degree of Observer Meteorologist

Hellenic Meteorological Service Hellenic Air Force

- [2009] On the Job Training (OJT) degree of observer meteorologist Hellenic Air Force
- [2013] Summer School: Dynamics and Management of the Mediterranean

#### **Sea Environment**

Technological Educational Institute of Ionian Islands, Department of Environmental Technology, 1/9/2013 – 11/9/2013, Zakynthos (Greece)

• [2016] Seminar: Data Science with Python

E-learning seminar on Python programming language National and Kapodistrian University of Athens November 2015 – February 2016

[2018] Seminar: «Professional Certificate Program in Data Science»

E-learning seminar on R programming language

Harvard University

November 2018 - February 2019

Completed courses: R basics, Visualization, Probability,

**Productivity Tools** 

# Languages

English (Excellent)

- I.E.L.T.S. (Academic) Certificate,
  University of Cambridge Local
  Examinations Syndicate, September
  2013 (Βαθμός 8.0 / 9.0)
- First Certificate in English, University of Cambridge, June 1995

❖ French (Moderate)

D.E.L.F. I

Diplôme d'études en langue française

Unites A1, A2, A3, A4

June 1996

• Certificat de langue française

September 1996

Greek (Excellent)

Native Speaker

# **Computing Skills**

- ✓ Programming skills in FORTRAN
- ✓ Programming skills in R
- ✓ Basic Programming skills in Python

- ✓ Experience in statistical data processing with statistical package SPSS (V18-V22)
- ✓ User of Grapher and Surfer visualisation packages
- ✓ Fluent in Microsoft Office (Excel, Word, PowerPoint) and Internet. ECDL modules 3 "Word processing", 4 "Spreadsheets", 7 "Web browsing and communication"

# **Working Experience**

#### **TEACHING EXPERIENCE**

- ✓ [16/10/2013-7/2/2014]: Higher Education Teaching Professional, Technological Educational Institute of Ionian Islands, Department of Food Technology, Argostoli (Greece), Teaching of the lesson: "Physics (Laboratory)"
- ✓ [13/10/2014-13/2/2015]: Higher Education Teaching Professional, Technological Educational Institute of Ionian Islands, Department of Environmental Technology, Zakynthos (Greece), Teaching of the lessons: "Fluid Mechanics (Laboratory)" and "Air Pollution (Laboratory)"
- ✓ [9/3/2015-10/7/2015]: Higher Education Teaching Professional, Technological Educational Institute of Ionian Islands, Department of Environmental Technology, Zakynthos (Greece), Teaching of the lessons: "Renewable Energy Sources 2 (Theory)" and "Meteorology Climatology (Laboratory)"
- ✓ [5/10/2015-12/2/2016]: Higher Education Teaching Professional, Technological Educational Institute of Ionian Islands, Department of Environmental Technology, Zakynthos (Greece), Teaching of the lessons: "Fluid Mechanics (Laboratory)" and "Air Pollution (Laboratory)"
- ✓ [4/11/2015-31/3/2016]: Higher Education Teaching Professional, Technological Educational Institute of Athens, Department of Energy Technology Engineering, Athens (Greece), Teaching of the lesson: "Physics (Laboratory)"
- ✓ [1/3/2016-30/6/2016]: Higher Education Teaching Professional, Technological Educational Institute of Ionian Islands, Department of Environmental Technology, Zakynthos (Greece), Teaching of the lessons: "Renewable Energy Sources 2 (Theory)", "Meteorology Climatology (Laboratory)" and "Renewable Energy Sources 1 (Laboratory)"
- ✓ [11/2/2017-30/6/2017 & 1/9/2017-29/9/2017]: Higher Education Teaching Professional, University of Ioannina, Department of Physics, Postgraduate program Atmospheric Sciences and Environment, Teaching of the lesson: "Renewable Energy Sources"
- ✓ [10/10/2017-31/7/2018]: Higher Education Teaching Professional, Hellenic Open University, Postgraduate program Waste Management, Teaching of the lesson: Air Pollution Management. Also supervision of two MSc theses.

✓ [12/2/2018-30/6/2018 & 1/9/2018-30/9/2018]: Higher Education Teaching Professional, University of Ioannina, Department of Physics, Postgraduate program Atmospheric Sciences and Environment, Teaching of the lesson: "Renewable Energy Sources"

#### RESEARCH EXPERIENCE

- ✓ [2/8/2019-31/10/2019]: Post doc researcher at the Institute for Environmental Research and Sustainable Development (IERSD) of the National Observatory of Athens. Program: Composing the chapter "Climate change and health" as part of the review of the environmental status in Greece. The work was performed for the National Centre of Environment and Sustainable Development
- ✓ [1/2/2020-30/4/2020]: Post doc researcher at the Institute for Environmental Research and Sustainable Development (IERSD) of the National Observatory of Athens. Program: Observatory of Air and Particulate Pollution over Greece
- ✓ [1/7/2020-30/6/2022]: Post doc researcher at the Institute for Environmental Research and Sustainable Development (IERSD) of the National Observatory of Athens. Program: National Network on Climate Change and its Impacts (CLIMPACT)
- ✓ [1/2/2024-Today]: Post doc researcher at the Institute for Environmental Research and Sustainable Development (IERSD) of the National Observatory of Athens. Program: Climate change, Health and Energy: Impacts and interactions (ENACT)

#### OTHER WORKING EXPERIENCE

- ✓ [2/12/2008-2/9/2009]: Observer Meteorologist, Hellenic Air Force, Preveza (Greece), The main duties were to observe, record and transmit meteorological data
- ✓ [4/9/2022-9/9/2022]: Volunteer work during the 11<sup>th</sup> International Aerosol Conference (IAC), Athens, Greece.

#### **Main Research Interests**

- ✓ Atmospheric circulation and air quality
- ✓ Source apportionment of gaseous and particulate pollutants
- ✓ Air quality indicators and human exposure to air pollutants
- ✓ Long range and regional transport of gaseous and particulate pollutants with special emphasis on particles and their chemical composition
- ✓ Air mass trajectories including 2D & 3D air mass residence time modelling
- ✓ Biometeorology and thermal comfort indices

## List of publications

#### **JOURNAL PUBLICATIONS**

# <u>35 publications (32 as first author) – Average impact factor: 5.7 – Average number of authors: 3.6</u>

- 1. **Dimitriou, K.**, Paschalidou, A.K., Kassomenos, P.A., 2013. Assessing air quality with regards to its effects on human health in the European Union through air quality indices. (Ecological Indicators, 27, 108-115) [IF: 6.9]
- Kassomenos, P.A., Dimitriou, K., Paschalidou, A.K., 2013. Human health damage caused by particulate matter PM(10) and ozone in urban environments: the case of Athens, Greece. (Environmental Monitoring and Assessment, 185 (8), 6933-6942) [IF: 3.0]
- 3. **Dimitriou, K.**, Kassomenos, P.A., 2013. The fine and coarse particulate matter at four major Mediterranean cities: Local and regional sources. (Theoretical and Applied Climatology, 114 (3-4), 375-391) [IF: 3.4]
- 4. **Dimitriou, K.**, Kassomenos, P.A., 2014. Local and regional sources of fine and coarse particulate matter based on traffic and background monitoring (Theoretical and Applied Climatology, 116 (3-4), 413-433) [IF: 3.4]
- 5. **Dimitriou, K.**, Kassomenos, P.A., 2014. Decomposing the profile of PM in two low polluted German cities Mapping of air mass residence time, focusing on potential long range transport impacts (Environmental Pollution, 190, 91-100) [IF: 8.9]
- 6. **Dimitriou, K.**, Kassomenos, P.A., 2014. Indicators reflecting local and transboundary sources of PM<sub>2.5</sub> and PM<sub>COARSE</sub> in Rome Impacts in air quality. (Atmospheric Environment, 96, 154-162) [IF: 5.0]
- 7. **Dimitriou, K.**, Kassomenos, P.A., 2014. A study on the reconstitution of daily PM<sub>10</sub> and PM<sub>2.5</sub> levels in Paris with a multivariate linear regression model. (Atmospheric Environment, 98, 648-654) [IF: 5.0]
- 8. **Dimitriou, K.**, Kassomenos, P.A., 2015. Three year study of tropospheric ozone with back trajectories at a metropolitan and a medium scale urban area in Greece (Science of the Total Environment, 502, 493-501) [IF: 9.8]
- 9. Petrou, I., **Dimitriou, K.**, Kassomenos, P.A., 2015. Distinct atmospheric patterns and associations with acute heat induced mortality in five regions of England. (International Journal of Biometeorology, 59, 1413-1424) [IF: 3.2]
- 10. **Dimitriou, K.**, 2015. The dependence of PM size distribution from meteorology and local-regional contributions, in Valencia (Spain) A CWT model approach. (Aerosol and Air Quality Research, 15, 1979-1989) [IF: 4.0]

- 11. **Dimitriou, K.**, Remoundaki, E., Mantas, E., Kassomenos, P.A., 2015. Spatial distribution of source areas of PM<sub>2.5</sub> by Concentration Weighted Trajectory (CWT) model applied in PM<sub>2.5</sub> concentration and composition data. (Atmospheric Environment, 116, 138-145) [IF: 5.0]
- 12. **Dimitriou, K.**, Mc-Gregor, G., Kassomenos, P.A., Paschalidou, A.K., 2016. Exploring winter mortality variability in five regions of England, using back trajectory analysis. (Earth Interactions, 20(1), 1-27) [IF: 2.0]
- Dimitriou, K., Kassomenos, P.A., 2016. Combining AOT, Angstrom Exponent and PM concentration data, with PSCF model, to distinguish fine and coarse aerosol intrusions in Southern France. (Atmospheric Research, 172-173, 74-82) [IF: 5.5]
- 14. **Dimitriou, K.**, 2016. Upgrading the estimation of daily PM<sub>10</sub> concentrations utilizing prediction variables reflecting atmospheric processes. (Aerosol and Air Quality Research, 16, 2245-2254) [IF: 4.0]
- 15. **Dimitriou, K.**, Kassomenos, P.A., 2017. The covariance of air quality conditions in six cities in Southern Germany The role of meteorology. (Science of the Total Environment, 574, 1611-1621) [IF: 9.8]
- 16. **Dimitriou, K.**, Paschalidou, A.K., Kassomenos, P.A., 2017. Distinct synoptic patterns and air masses responsible for long-range desert dust transport and sea-spray in Palermo, Italy. (Theoretical and Applied Climatology, 130, 1123-1132) [IF: 3.4]
- 17. **Dimitriou, K.**, Kassomenos, P.A., 2017. Aerosol contributions at an urban background site in Eastern Mediterranean Potential source regions of PAHs in PM<sub>10</sub> mass. (Science of the Total Environment, 598, 563-571) [IF: 9.8]
- Dimitriou, K., Kassomenos, P.A., 2017. Airborne heavy metals in two cities of North Rhine Westphalia – Performing inhalation cancer risk assessment in terms of atmospheric circulation. (Chemosphere, 186, 78-87) [IF: 8.8]
- 19. **Dimitriou, K.**, Kassomenos, P.A., 2018. The influence of specific atmospheric circulation types on PM<sub>10</sub>-bound benzo(a)pyrene inhalation related lung cancer risk in Barcelona, Spain. (Environment International, 112, 107-114) [IF: 11.8]
- 20. **Dimitriou, K.**, Kassomenos, P.A., 2018. Day by day evolution of a vigorous two wave Saharan dust storm Thermal and air quality impacts. (Atmosfera, 31(2), 105-124) [IF: 1.4]
- 21. **Dimitriou, K.**, Kassomenos, P.A., 2018. Quantifying daily contributions of source regions to PM concentrations in Marseille, based on the trails of incoming air masses. (Air Quality Atmosphere and Health, 11, 571–580) [IF: 5.1]
- 22. **Dimitriou, K.**, Kassomenos, P.A., 2018. A meteorological analysis of PM<sub>10</sub> episodes at a high altitude city and a low altitude city in central Greece The impact of wood burning heating devices (Atmospheric Research, 214, 329–337) [IF: 5.5]

- 23. **Dimitriou, K.**, Kassomenos, P.A., 2019. Allocation of excessive cancer risk induced by benzene inhalation in 11 cities of Europe in atmospheric circulation regimes. (Atmospheric Environment, 201, 158–165) [IF: 5.0]
- 24. **Dimitriou, K.**, Kassomenos, P.A., 2019. Estimation of North African dust contribution on PM<sub>10</sub> episodes at four continental Greek cities. (Ecological Indicators, 106, 105530) [IF: 6.9]
- Dimitriou, K., Kassomenos, P.A., 2020. Background concentrations of benzene, potential long range transport influences and corresponding cancer risk in four cities of central Europe, in relation to air mass origination. (Journal of Environmental Management, 262, 110374) [IF: 8.7]
- Dimitriou, K., Liakakou, E., Lianou, M., Psiloglou, M., Kassomenos, P., Mihalopoulos, N., Gerasopoulos, E., 2020. Implementation of an aggregate index to elucidate the influence of atmospheric synoptic conditions on air quality in Athens, Greece. (Air Quality Atmosphere and Health, 13(4), 447-458) [IF: 5.1]
- 27. **Dimitriou, K.**, Grivas, G., Liakakou, E., Gerasopoulos, E., Mihalopoulos, N., 2021. Assessing the contribution of regional sources to urban air pollution by applying 3D-PSCF modeling. (Atmospheric Research, 248, 105187) [IF: 5.5]
- 28. Kaskaoutis, D.G., Grivas, G., Stavroulas, I., Liakakou, E., Dumka, U.C., **Dimitriou, K.**, Gerasopoulos, E., N. Mihalopoulos, N., 2021. In situ identification of aerosol types in Athens, Greece, based on long-term optical and on online chemical characterization. (Atmospheric Environment, 246, 118070) [IF: 5.0]
- 29. **Dimitriou, K.**, Mihalopoulos, N., Leeson, S.R., Twigg, M.M., 2021. Sources of PM<sub>2.5</sub>-bound water soluble ions at EMEP's Auchencorth Moss (UK) supersite revealed by 3D-Concentration Weighted Trajectory (CWT) model. (Chemosphere, 274, 129979) [IF: 8.8]
- 30. **Dimitriou, K.**, Bougiatioti, A., Ramonet, M., Pierros, F., Michalopoulos, P., Liakakou, E., Solomos, S., Quehe, P-Y., Delmotte, M., Gerasopoulos, E., Kanakidou, M., Mihalopoulos, N., 2021. Greenhouse gases (CO<sub>2</sub> and CH<sub>4</sub>) at an urban background site in Athens, Greece: Levels, sources and impact of atmospheric circulation. (Atmospheric Environment, 253, 118372) [IF: 5.0]
- 31. **Dimitriou, K.**, Tsagkaraki, M., Zarmpas, P., Mihalopoulos, N., 2022. Impact of spatial and vertical distribution of air masses on PM<sub>10</sub> chemical components at the Eastern Mediterranean A seasonal approach. (Atmospheric Research, 266, 105974) [IF: 5.5]
- 32. **Dimitriou, K.**, Pikridas, M., Oikonomou, K., Sciare, J., Savvides, C., Vassiliadou, E., Mihalopoulos, N., 2022. A 3-Dimensional analysis of long-range transported particulate matter to the Eastern Mediterranean: Implication for the chemical components of PM<sub>1</sub> and PM<sub>10</sub>. (Atmospheric Pollution Research, 13, 101485) [IF: 4.5]
- 33. **Dimitriou, K.**, Kassomenos, P.A., 2022. Ionic composition of six-year daily precipitation samples collected at JRC-Ispra (Italy) in relation to synoptic patterns and air mass origin. (Atmospheric Pollution Research, 13, 101601). [IF: 4.5]

- 34. **Dimitriou, K.**, Stavroulas, I., Grivas, G., Chatzidiakos, C., Kosmopoulos, G., Kazantzidis, A., Kourtidis, K., Karagioras, A., Hatzianastassiou, N., Pandis, S.N., Mihalopoulos, N., Gerasopoulos, E., 2022. Intra- and inter-city variability of PM<sub>2.5</sub> concentrations in Greece as determined with a low-cost sensor network. (Atmospheric Environment, 301, 119713). **[IF: 5.0]**
- 35. **Dimitriou, K.**, Tsagkaraki, M., Tavernaraki, K., Papoutsidaki, K., Malandraki, M.A., Petrinoli, K., Liakakou, E., Bougiatioti, A., Mihalopoulos, N., 2024. The effect of mixed layer across air mass trajectory pathways on PM<sub>2.5</sub> constituent levels: The case of a major urban center in the Eastern Mediterranean. (Atmospheric Pollution Research, 15, 102129). [IF: 4.5]

#### IF: Journal Impact Factor 2022 (Clarivate Analytics 2023)

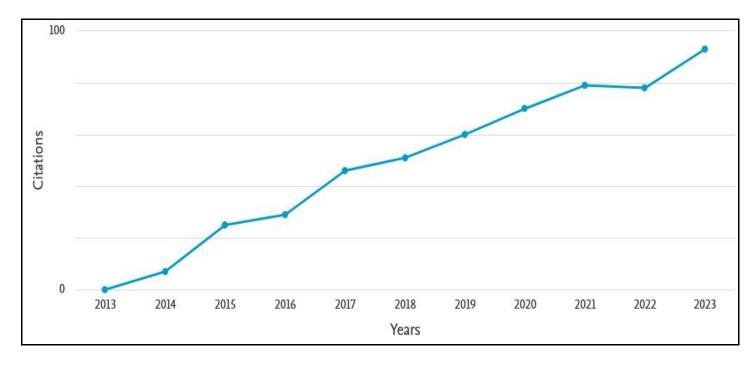
#### **INTERNATIONAL CONFERENCES**

- Kassomenos, P.A., Dimitriou, K., Karakitsios, S.K., Sarigiannis, D.A., 2009. Indices to characterize human health damage from PM10, Ozone in life cycle basis. Proceedings of the 11<sup>th</sup> International Conference on Environmental Science and Technology (CEST), pgs 568-575. Chania, Crete, Greece, 3 - 5 September 2009.
- 2. Mc-Gregor, G., **Dimitriou, K.**, Kassomenos, P.A., Paschalidou, A.K., 2016. Exploring the Meteorological Origins of Winter Mortality in England Using Back Trajectory Analysis. 7th Conference on Environment and Health, American Meteorological Society, New Orleans, 10 14 January 2016.
- 3. Mihalopoulos, N., Bougiatioti, A., Pierros, F., **Dimitriou, K.**, Quehe, P-Y., Delmotte, M., Ramonet, M., 2020. Greenhouse gases measurements at the urban environment of Athens, Greece. Integrated Carbon Observation System (ICOS) Online Science Conference, 15 17 September 2020.
- 4. Kaskaoutis, D. G., Grivas, G., Stavroulas, I., Liakakou, E., **Dimitriou, K.**, Gerasopoulos, E., Mihalopoulos, N., 2020. Identification of key aerosol types in Athens based on long-term in situ optical and chemical properties. Second Scientific Conference PANACEA, Web Conferencing 29 September 1 October 2020.
- Bougiatioti, A., Dimitriou, K., Ramonet, M., Pierros, F., Michalopoulos, P., Liakakou, E., Solomos, S., Quehe, P-Y., Delmotte, M., Gerasopoulos, E., Kanakidou, M., Mihalopoulos, N., 2021. Greenhouse gases in the urban environment of Athens, trends and sources. 17<sup>th</sup> International Conference on Environmental Science and Technology (CEST), Athens, Greece, 1 - 4 September 2021.
- Bougiatioti, A., Pierros, F., Dimitriou, K., Quehe, P-Y., Delmotte, M., Ramonet, M., Mihalopoulos, N., 2021. Year-long greenhouse gases measurements at the urban environment of Athens, Greece. 15<sup>th</sup> International Conference on Meteorology, Climatology and Atmospheric Physics (COMECAP), Ioannina, Greece, 26 – 29 September 2021.

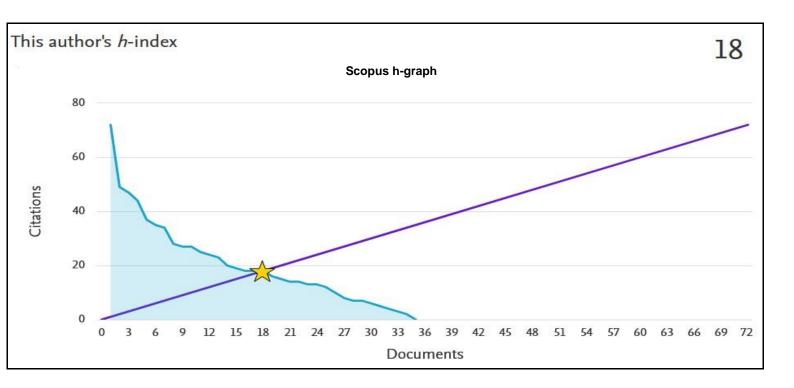
- 7. **Dimitriou, K.**, Pikridas, M., Sciare, J., Mihalopoulos, N., 2021. The effect of spatial and altitudinal distribution of air parcels in the Eastern Mediterranean basin on PM<sub>10</sub> and PM<sub>1</sub> composition. 2nd International Conference "Climate Change in the Eastern Mediterranean & Middle East" Online Pre Conference Workshops 11 12 October 2021.
- 8. Kaskaoutis, D., Grivas, G., Stavroulas, I., Liakakou, E., Bougiatioti, A., Dumka, U., **Dimitriou, K.**, Gerasopoulos, E., Mihalopoulos, N., 2022. Identification of key aerosol types in Athens: Optical properties and the curvature effect in spectral scattering and absorption coefficients. 11<sup>th</sup> International Aerosol Conference (IAC), Athens, Greece, 4 9 September 2022.
- Dimitriou, K., Stavroulas, I., Grivas, G., Chatzidiakos, C., Kosmopoulos, G., Kazantzidis, A., Kourtidis, K., Hatzianastassiou, N., Mihalopoulos, N., Gerasopoulos, E., 2022. Intra- and inter-city variability of PM<sub>2.5</sub> concentrations over Greece. 11<sup>th</sup> International Aerosol Conference (IAC), Athens, Greece, 4 9 September 2022.

### **Citations**

✓ h-index (Scopus): 18 [Total citations: 714] [Citations excluding self-citations of all authors: 574]



\*Variance of citations excluding self-citations of all authors



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